



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,181	12/15/2003	Nathalie Moughin	05725.1303-00	2162
22852	7590	07/09/2008	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			VENKAT, JYOTHSNA A	
ART UNIT	PAPER NUMBER			
		1615		
NOTIFICATION DATE	DELIVERY MODE			
07/09/2008	ELECTRONIC			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

<b>Office Action Summary</b>	<b>Application No.</b> 10/734,181	<b>Applicant(s)</b> MOUGIN, NATHALIE
	<b>Examiner</b> JYOTHSNA A. VENKAT	<b>Art Unit</b> 1615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 01 April 0408.

2a) This action is FINAL.      2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-40,46,63-65,80-86,90 and 91 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-40, 46, 63-65, 80-86 and 90-91 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) Notice of References Cited (PTO-892)  
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  
 3) Information Disclosure Statement(s) (PTO/SB/08)  
 Paper No(s)/Mail Date \_\_\_\_\_

4) Interview Summary (PTO-413)  
 Paper No(s)/Mail Date \_\_\_\_\_  
 5) Notice of Informal Patent Application  
 6) Other: \_\_\_\_\_

### **DETAILED ACTION**

Receipt is acknowledged of remarks file don 4/14/08. Applicants' are notified that the letter (4/14/08) submitted in provisional application regarding translation of provisional application does not identify the provisional application number. Therefore applicants' are not accorded the benefit under 35 U. S. C. 119 (c).

Generic claims and sub generic claims would be examined to the extent that it reads on the elected species, wherein the gradient copolymer is "ethyl acrylate/styrene/methacrylic acid ". Claims 1-40, 46, 63-65, 80-86 and 90-91 are pending in the application. Claim 47 is withdrawn from consideration since elected species is methacrylic acid and claim 47 recites " acrylic acid".

The rejection of claims 1-40, 63-65 and 79-86 under 102(b) over U. S. Patent 5,527,840 is withdrawn since patent '840 does not disclose gradient polymer.

#### ***Response to Arguments***

Applicant's arguments with respect to claims rejected under 103 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 103***

Claims 1-40, 46, 63-65, 80-86 and 90-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of U. S. Patents 6,113,881 ('881) and 5, 527, 840 ('840) and 5,807, 937 ('937).

Patent '881 teaches styling compositions in the form of sprays and gels. See col.2, 11 30-48. Patent teaches that film forming polymers are used to provide a film on the hair and these compositions are in the form of spray. Patent at col.2, 11 49-54 teaches styling compositions in the form of gels. Patent at col.3, 11 30-31 teaches that resins or polymers are used in styling

compositions and they are well known. Patent at col. 13, 11 55-68 teaches terpolymers (more than two monomers) in styling compositions. Patent '881 does not teach the specific film former claimed (elected species is drawn to a terpolymer). Patent '840 teaches the claimed species as a film forming agent in coating. Patent clearly teaches the concept of coating a substrate. See the abstract for solvent, which can be water or organic solvent and this reads on the claimed "cosmetically acceptable medium". See examples 1 and 2-7. See table 1 for carboxy addition polymers. The patent discloses the claimed species. See also the average molecular weight and glass transition temperature. See col.4, 11, 32-33 for the weight percent of the carboxy polymer and the claimed weight percent of the gradient copolymer is within the weight percent of the polymer disclosed in the patent. See col.4, 11 58-64 for the molecular weight of the polymer. See col.6, 11 42-50 for the additives, which read on claim 86. Water reads on the claimed medium (claims 84-85). See table 1, examples A-G for claims 28-31. Acrylic acid is the hydrophilic monomeric residue. Patent does not state that the polymer is a gradient polymer claimed in the instant application. Patent '937 teaches novel copolymers having useful structures and properties and teaches polymers formed by atom transfer radical polymerization (ATRP). See the abstract for gradient polymers, see figures. Patent at col.6, 11 45-60 teaches novel copolymers that are useful in variety of application and it also teaches copolymers in cosmetic and hair products. See col.8, see col.10, 11 39-68. Patent at col.14, line 45 through col.17, line 3 teaches various monomers. Patent at col.16, at line 46 teaches preferred monomers and at line 47 teaches (meth)acrylic acid. This means it can be acrylic acid or methacrylic acid and at line 48 teaches meth(acrylate) esters of C1-20 alcohols. This includes ethyl acrylate as the monomer.

Art Unit: 1615

Patent at col.17, line 2 teaches preferred monomer as styrene. Patent at col.29, line 28 through col.31 teaches gradient copolymers. See examples 16-20.

Accordingly, it would be obvious to one of ordinary skill in the art at the time the invention was made to prepare compositions of '881 and use in the form of gel or sprays and substitute the film formers of patent '881 with film formers of patent '840 which teaches these polymers are used for coating and prepare the polymer by ATRP instead of conventional polymerization . The function of both the polymers is same that is both the polymers of patent '881 and '840 are film formers. Therefore one of ordinary skill in the art would substitute the film former of '881 with a film former of '840 and prepare the polymer by ATRP using the monomers ethyl acrylate, styrene and acrylic acid with the reasonable expectation of success that the film former of '840 can be used in styling and coating the hair so that a film is formed on the hair and it is well known to use polymers for hair styling taught by patent '881 and use the copolymer of '840 and prepare the copolymer by ATRP so that gradient copolymer is obtained since polymers made by ATRP has the advantage of high monomer conversion and high initiator efficiency and low poly dispersity and the gradient polymers formed by ATRP can be used in hair care products taught by patent '937. This is a *prima facie* case of obviousness.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JYOTHSNA A. VENKAT whose telephone number is 571-272-0607. The examiner can normally be reached on Monday-Friday, 10:30-7:30:1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, MICHAEL WOODWARD can be reached on 571-272-8373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/JYOTHSNA A VENKAT /  
Primary Examiner, Art Unit 1615